b) AT&T/WorldCom's Lives Are Backward-Looking and Inconsistent with TELRIC.

In contrast to GAAP lives, the depreciable lives recommended by AT&T/WorldCom make no sense whatsoever and are inherently backward-looking. Mr. Lee proposes that this Commission apply the depreciation lives it prescribed in 1994, based on data accumulated in the preceding years. (Tr. at 3256.) The Commission set these lives before the 1996 Telecommunications Act even was conceived, and not surprisingly, the Commission has shortened the range of permissible lives several times since then.[30/] (VZ-VA Ex. 114 at 4; Tr. at 3256.)

As an initial matter, Mr. Lee expressly admitted that the depreciation lives he recommends are *not* based on a hypothetical TELRIC world, (Tr. at 3371), but on a world in which the ILEC is the sole provider of local service. (Tr. at 3396.) Indeed, it would be absurd to believe that lives established by the Commission in 1994 were based on the assumptions inherent in TELRIC. Mr. Lee conceded this point, agreeing that the lives he recommends were established before Virginia law even permitted competing carriers to offer local service, let alone "before Verizon Virginia had to unbundle its network and lease it to its competitors at TELRIC rates." (Tr. at 3264-66.)

But this approach is manifestly inconsistent with TELRIC *and* the MSM model. As AT&T/WorldCom witness Ms. Murray herself conceded, when setting depreciable lives, "you have to consider the competitive effects of a regime that has TELRIC pricing that allows for

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30/ Not surprisingly, Mr. Lee tends to propose lives that are *longer* than those prescribed since 1994 by the FCC, and in virtually all other cases, he proposes lives on the higher end of the FCC range. (VZ-VA Ex. 114 at 8.)

repricing every X period of time based on the diminution of the value to the wholesale resource because of the technology change." (Tr. at 3408-09.) Thus, the TELRIC approach clearly mandates *shorter* lives than those proposed by AT&T/WorldCom. Moreover, under the AT&T/WorldCom assumption that the network must be evaluated every three years as though a new entrant had instantaneously built a brand-new, ubiquitous network, the depreciable life of every network asset would have to be even shorter than those that would apply in a real world competitive market. (*See* Tr. at 3170-73 (Shelanski).) AT&T/WorldCom's failure to account for the impact of their model's assumptions on depreciation makes the MSM all the more inconsistent and flawed. Indeed, even the lives used by Verizon VA are too conservative for use in the MSM.

The lives recommended by Mr. Lee not only fail to account for the hypothetical TELRIC construct, they fail to account even for the very real impact that current and expected technological change and competition have had on the depreciable lives of telecommunications technology to date. (VZ-VA Ex. 114 at 3-4.) Indeed, Mr. Lee fails even to acknowledge that the Commission itself *shortened* the range of depreciation lives it recommended in 1994: once in 1995 and then again in 1999. (VZ-VA Ex. 114 at 5.) Although Mr. Lee tried to defend the FCC's prescribed lives as "forward-looking in '94" (Tr. at 3358), they cannot be considered even remotely "forward-looking" today. They do not account for the impact of technological change since 1994, the competition that has developed as a result of the 1996 Act, and the extent to which competition is expected to develop in coming years.

Mr. Lee offered only two arguments in support of his proposed lives, both of which are unavailing. First, he argued that the 1994 lives must have been forward-looking and must have comprehended the ensuing competition because Verizon VA's depreciation reserve has increased

since 1994 — suggesting that there is some necessary relationship between the reserves and whether the depreciation lives are forward-looking. But Mr. Lee's entire argument concerning depreciation reserve is simply a red herring, unrelated to the accurate estimation today of *forward-looking* lives, since reserve analysis is based on historical retirements. As Mr. Lee himself has pointed out, the Commission has not looked to historical retirements in setting depreciation lives since 1980. (*See* AT&T/WCom Ex. 9 at 12.)

In any case, as Dr. Lacey observed, Mr. Lee's conclusions regarding depreciation reserve are simply incorrect. The depreciation reserve naturally increases as the depreciated asset ages, regardless of whether the depreciable life is forward-looking. (VZ-VA Ex. 113 at 5.) Moreover, Verizon VA's depreciation reserve also has increased as a result of the addition of new assets with shorter lives, which increases the size and the percentage of the depreciation reserve. (VZ-VA Ex. 113 at 5-6.) As a result, the increase in Verizon VA's depreciation reserve presents no reason to assume that 1994 lives are forward-looking. Indeed, as Dr. Lacey explained, the current depreciation reserve is probably not growing fast enough. For example, AT&T's depreciation reserve, which is the result of GAAP lives, has increased far more rapidly and significantly than Verizon VA's. (VZ-VA Ex. 113 at 8-10.)

Mr. Lee next suggested that competition may actually *lengthen* depreciable lives by providing Verizon with a UNE market for its network assets, even while competitors might be eroding Verizon VA's retail customer base. (Tr. at 3362-63.) But as Commission Staff observed, the TELRIC analysis assumes full-blown facilities-based competition, meaning that Verizon VA would be assumed to have facilities-based competitors, whose own offerings would compete with, and thus *decrease* Verizon VA's opportunity to lease UNEs. (Tr. at 3368-69; 3372-73.) AT&T/WorldCom witness Ms. Murray in fact conceded that facilities-based

competition would directly shorten Verizon VA's depreciation lives. (Tr. at 3402-03.) Ironically, she suggested that this impact could be avoided if UNE-based competition, rather than facilities-based competition, were encouraged through reduced rates. (Tr. at 3403-04.) Even if that were true (and it is not), the point is absurdly circular and inconsistent with AT&T/WorldCom's overall approach. Petitioners' entire case is based on the existence of a hypothetical competitor able to build out the full network at absurdly low prices. Yet Ms. Murray essentially asks the Commission to assume away that facilities-based competitor and instead set depreciation lives based on the assumption of only UNE-based competitors. As Commission Staff noted, Ms. Murray essentially asks the Commission to "assume a competitive market, but the competitor is also a monopoly provider of [UNEs]." (Tr. at 3406.) Clearly, the more forward-looking, consistent approach is the one employed by Verizon VA.

2. Verizon VA's Depreciation Lives Are Accurate and Reliable.

The Commission itself has recognized the viability of GAAP lives in costing analyses. In recent cases under section 271 of the Act, the Commission approved the use of GAAP lives by SBC (in Kansas and Oklahoma) and by Verizon (in Pennsylvania).[31/] (*See* VZ-VA Ex. 114 at 3.) As the Commission has observed, "a state may find that a depreciation schedule such as [one based on GAAP] is appropriate, and AT&T has failed to indicate why it would not be so here."[32/]

Mr. Lee nonetheless has sought to discredit the use of GAAP lives by suggesting they are biased toward choosing shorter lives than is appropriate. But he performed no study whatsoever

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31/ *Kansas-Oklahoma § 271 Order* at ¶ 74; *see* Reply Declaration of Daniel J. Whelan and Gary E. Sanford, *Application by Verizon Pennsylvania Inc. et al. for Authorization to Provide In-Region, InterLATA Services in Pennsylvania*, FCC 01-269 CC Docket No. 01-138, at 16-18 (August 2001.)

32/ *Kansas-Oklahoma § 271 Order* at 6238 ¶ 76.

before recommending the Commission's 1994 lives and criticizing those used by Verizon VA. (*See* VZ-VA Ex. 127; Tr. at 3258.) Thus, Mr. Lee's argument is necessarily based simply on misguided criticisms of GAAP principles. Mr. Lee failed to acknowledge a central tenet of GAAP: GAAP lives are intended to be inherently reliable and unbiased. (VZ-VA Ex. 105 at 11-13.) A primary principle of the Financial Accounting Standards Board (FASB), the premier U.S. accounting standard-setting body, is that accounting information must possess "relevance" and "reliability," which in turn means that the data used must be verifiable and neutral, with no "bias intended to attain a predetermined result or to induce a particular mode of behavior."[33/]

Moreover, as Dr. Lacey explained, because companies use GAAP lives for financial reporting purposes, they have no incentive to understate lives. (VZ-VA Ex. 105 at 11-13.) Shorter depreciable lives produce higher expenses and lower net income, which could have negative implications for the company's stock price and management compensation decisions. Depreciation lives set too short also would send incorrect signals to investors, which GAAP seeks to avoid. Moreover, setting the depreciable life too short results in a large depreciation soon after purchasing the asset, leaving no depreciation cost to be realized later. (VZ-VA Ex. 119 at 6-7; Tr. at 3336.)

The reasonableness of the GAAP lives recommended by Verizon VA is confirmed by their comparability to the lives adopted by Verizon VA's competitors and others in the industry. As Mr. Sovereign explained, Verizon VA benchmarked its lives against those of several industry players, including AT&T, WorldCom, cable companies, and lives proposed in industry studies performed by Technology Futures, Inc. In all cases, Verizon VA's lives were comparable to or

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33/ FASB Statement of Financial Accounting Concepts No. 2, "Qualitative Characteristics of Accounting Information," Figure 1 and Glossary.

longer than the lives against which they were benchmarked. (VZ-VA Ex. 106 at 12-16.) Mr. Lee sought to downplay the fact that Verizon VA's lives were comparable to those used by AT&T, arguing that AT&T's lives were irrelevant for several reasons, including that they were long distance lives. (Tr. at 3262-63.) But ultimately even he conceded that AT&T uses the same lives for its long distance and local network, and there is no question that the lives AT&T used in its 1999 financial reports are significantly *shorter* than Verizon VA's lives. (Tr. at 3263-64.)[34/] No AT&T/WorldCom witness has been able to explain why Verizon VA should use *longer* lives than those used by its chief competitors — especially given that the lives are being used for a TELRIC costing analysis, and thus must assume a market far more competitive than anything AT&T or WorldCom currently experience.

B. Cost of Capital

Verizon VA's cost studies employ a 12.95% cost of capital in assessing Verizon VA's TELRIC UNE costs, which is the cost of capital Verizon VA uses in making network investment decisions.[35/] Rather than using a book or embedded approach, Verizon VA used a forward-looking, market approach to assess the cost of both equity and debt. Thus, for example, in assessing its risk in the forward-looking market, Verizon VA used the S&P industrial companies

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34/ Similarly, Mr. Lee's firm provided technical assistance for a depreciation rate study performed for the Puerto Rico Telephone Company in 1996, which arrived at lives similar to those proposed by Verizon VA. While Mr. Lee recommends a life of 21 years for Verizon VA's buried copper cable, the Puerto Rico study supported a life of 15 years. (*See* Tr. at 3276-77.) For aerial cable, Mr. Lee recommends a life for Verizon VA of 23 years, even though the Puerto Rico study proposed a life of 14 years. (Tr. at 3277-78.) And Mr. Lee recommends a life for Verizon VA's digital electronic switching equipment of 17.5 years, even while he assisted in crafting a proposal for the Puerto Rico Telephone Company of 13 years. (*See* Tr. at 3279.)

35/ This issue is discussed in VZ-VA Ex. 104 at 1-48; VZ-VA Ex. 112 at 1-75; and VZ-VA Ex. 118 at 8-9, 12-18.

as a conservative proxy for the risk it would face in a competitive market. But as Dr. Vander Weide explained in his testimony, the cost of capital under that TELRIC construct actually would be "significantly higher" than what Verizon VA has employed, particularly if it had to reflect the risk that the network would be revalued based on the assumptions embodied in Petitioners' MSM. (VZ-VA Ex. 104 at 5.) The Commission itself has recognized that an appropriate cost of capital must take into account the regulatory risks inherent in TELRIC.[36/]

Petitioners' criticisms of and counterproposal to Verizon VA's approach suffer from one central and critical flaw: they are entirely inconsistent with TELRIC principles and with the network assumptions in the MSM and in AT&T/WorldCom's critique of Verizon VA's studies.[37/] AT&T/WorldCom's proposed cost of capital not only fails to account for the regulatory risks created by TELRIC, but also does not even purport to reflect the risk that Verizon VA would face in a competitive UNE market. Yet, as discussed above, even AT&T/WorldCom's economist has acknowledged that the cost of capital must at minimum be set in the context of such a competitive market.[38/] AT&T/WorldCom's use of a cost of capital that purportedly reflects the risk faced by incumbent LECs today, where competition has begun

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36/ FCC Reply Brief at 12 n.8.

37/ AT&T/WorldCom's proposed cost of debt is slightly higher (7.86%) than Verizon's proposal (7.55%). Although each party used different methods to arrive at its proposed cost of debt, the Commission could adopt either proposal in this proceeding.

38/ The Commission itself has likewise stated that UNE prices are intended to simulate the outcome of a competitive market, which necessarily requires that the cost of capital reflect the same assumption. *See, e.g.*, Memorandum Opinion and Order, *In the Matter of Application of Verizon New England Inc., Bell Atlantic Communications, Inc. (d/b/a Verizon Long Distance), NYNEX Long Distance Company (d/b/a Verizon Enterprise Solutions) and Verizon Global Networks, Inc. for Authorization to Provide In-Region InterLATA Services in Massachusetts*, 16 FCC Rcd 8988 ¶ 42 (rel. April 16, 2001) ("*Massachusetts § 271 Order*"); *Local Competition Order* at 15846, 15871 ¶¶ 679, 738.

to develop but is not full-blown, significantly understates forward-looking TELRIC costs.[39] (VZ-VA Ex. 104 at 35-43.) While AT&T/WorldCom's position is incorrect for several other reasons, discussed below, this fundamental and self-serving inconsistency, which is designed solely to decrease UNE costs, is sufficient to discredit Petitioners' cost of capital proposal in its entirety. **[BEGIN AT&T PROPRIETARY]**

[END AT&T PROPRIETARY]

1. AT&T/WorldCom Concede That Their Proposed Cost of Capital Violates TELRIC Principles.

As noted above, when pressed by Commission Staff, AT&T/WorldCom conceded at the hearings that the forward-looking cost of capital used in UNE cost studies must assume a fully competitive market, just like the assumptions contained in the UNE model's expense and investment components. As Ms. Murray acknowledged: "I think all the model's assumptions have to be consistent. So, to the degree that it requires a competitive market to get all of the other assumptions, that would be true for the cost of capital as well." (Tr. at 3202.) As Verizon's cost of capital expert Dr. James Vander Weide explained, a cost model that does not consistently reflect the competitive market assumption simply will not produce rates that replicate the costs that competitors would face in a competitive market. (VZ-VA Ex. 104 at 8.[40])

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[39] Verizon VA demonstrated that competition has already begun to develop in Virginia, including competition from facilities-based local service carriers and from alternative technologies such as cable, wireless, and IP telephony providers. (*See, e.g.*, VZ-VA Ex. 104 at 1-19 and Attachment A.)

[40] *See also* Tr. at 3475-82, 3525, 3529-30, 3548, 3562-63, 3568-69; VZ-VA Ex. 104 at 25-30; VZ-VA Ex. 112 at 2-4, 6-7, 14, 16-18, 20, 24, 39-40; VZ-VA Ex. 118 at 8-9, 12-18 at 8-9,

This problem is exacerbated because, under AT&T/WorldCom's vision of TELRIC, an ILEC faces not just the normal risks of a competitive market, but the even greater risks created by the assumption of instantaneous, ubiquitous and successive replacements.

Yet AT&T/WorldCom have expressly admitted that the cost of capital input they propose does not reflect conditions in a fully competitive market, let alone the additional regulatory risk inherent in TELRIC. AT&T/WorldCom propose a 9.54% cost of capital — one that is lower even than the 11.25% that the Commission noted years ago was a *starting place* for cost of capital considerations in a TELRIC model.[41/] As Mr. Hirshleifer stated throughout his testimony, this proposed cost of capital does *not* assume that Verizon VA will be operating in a fully competitive UNE market; rather, as he admitted during the hearing, it assumes "existing competition." (Tr. at 3626.) Indeed, despite Ms. Murray's concession to the contrary, he insists that no competitive market assumption is required under the FCC rules. (*See* AT&T/WCom Ex. 10 at 4-6.) Mr. Hirshleifer defends his proposed cost of capital and criticizes Verizon VA's on the ground that "[i]t is evident . . . that the FCC does not accept Dr. Vander Weide's argument . . . [that] there should be a hypothetical assumption that the risks of a fully competitive market exist for UNEs when in fact they do not." (AT&T/WCom Ex. 17 at 19; *see also* AT&T/WCom Ex. 10 at 5 (insisting that the FCC did not "intend[] a presumption of full competition"); *id.* at 6 ("It is clear that the FCC is not making the hypothetical assumption of full competition that Dr. Vander Weide would attribute to it."); *id.* at 11-12.)

12-18 (demonstrating that the *Local Competition Order,* subsequent FCC orders, the FCC Reply Brief, and general economic principles require consistent competitive market assumptions); VZ-VA Ex. 117 at 14 n.13, 16-17.

41/ *See Local Competition Order* at 15856 ¶ 702 (noting the Commission's finding that a cost of capital of 11.25% is a "reasonable starting point for TELRIC calculations").

As we show below in addressing each of Petitioners' major assertions, Mr. Hirshleifer's basic and misguided monopoly assumption underlies all his criticisms of Verizon VA's cost of capital. Thus, for example, he criticizes Dr. Vander Weide's use of the S&P industrials as a proxy to assess Verizon VA's forward-looking risk of providing UNEs on the ground that Verizon VA "ignores the critical facts that VZ-VA is overwhelmingly dominant in its territory." (AT&T/WCom Ex. 10 at 11; *see also* Tr. at 3629 ("[I]f we set aside TELRIC and are talking about a regulated company, it implies to me market dominance, and that's precisely why it's regulated.") (Hirshleifer).) In making these arguments, Mr. Hirshleifer apparently proceeded without regard to whether his approach was consistent with the assumptions underlying the majority of AT&T/WorldCom's TELRIC UNE cost analyses, explaining on cross examination that rather than review Petitioners' analysis, he simply "asked Ms. Murray to review [his] testimony and let me know whether there were any inconsistencies with the assumptions that [AT&T/WorldCom] were making in the case, and she said there were not." (Tr. at 3612.)

As noted above, of course, AT&T/WorldCom's own economist in fact believes that Mr. Hirshleifer's approach *is* contrary to the one that Petitioners contend must be used for UNE pricing. Ms. Murray testified several times that under "the Commission's Total Element Long Run Incremental Cost ('TELRIC') methodology, the prices for unbundled network elements should mimic the prices that would prevail if Verizon sold the same functionalities in a competitive market. Competitive market forces would drive prices down to efficient forward-looking economic costs." (AT&T/WCom Ex. 8 at 5; *see also* AT&T/WCom Ex. 11 at 5-6 ("TELRIC is the right methodology because, as this Commission explained when it adopted the TELRIC methodology in its Local Competition First Report and Order, 'Adopting a pricing methodology based on forward-looking, economic costs best replicates, to the extent possible,

the conditions of a competitive market.'").) Because AT&T/WorldCom have failed to follow these principles, their approach is internally inconsistent, and their proposed cost of capital must be rejected entirely.

Indeed, even if the Commission were willing to abandon its prior position — and its most recent statement to the Supreme Court recognizing that the cost of capital must take into account competitive and regulatory risks[42/] — it could not accept the cost of capital proposed by Petitioners. As Dr. Vander Weide and Dr. Shelanski explained, even the cost of capital used in Verizon VA's studies is not designed to reflect risks that would result from adopting the extreme, fantasy assumptions contained in AT&T/WorldCom's cost model. (VZ-VA Ex. 118 at 11-12; VZ-VA Ex. 117 at 13-14, 23, 33-34.) Under AT&T/WorldCom's successive instantaneous replacement theory, the corresponding cost of capital would be many times higher — if such a hypothetical carrier could obtain financing at all.[43/] (VZ-VA Ex. 104 at 5, 10, 31-32, 42; VZ-VA Ex. 118 at 11-12, 15; VZ-VA Ex. 101 at 13-14; VZ-VA Ex. 111 at 21.) No one can plausibly deny that providing UNEs in this type of environment would be extremely risky — particularly when CLECs are free to stop using Verizon's UNEs at any time. (VZ-VA Ex. 104 at 42; VZ-VA Ex. 101 at 13-14.)

42/ FCC Reply Brief at 12 n.8.

43/ One reason the cost of capital would have to be higher under the MSM assumptions is because the cost of capital must always include a risk premium to account for *un*anticipated technological change; depreciation lives can account only for development that is foreseen and consistent with expected trends. (Tr. at 3662-63.) In the MSM construct, that risk premium would be significantly greater, because the entire network could potentially, at any time, have to be replaced based on the assumption of full deployment of the latest new innovation.

2. AT&T/WorldCom's Cost of Capital Arguments Turn on Their Assumption That Verizon VA Is a Monopoly Provider.

a) Capital Structure

Verizon VA employed a capital structure consisting of 25% debt and 75% equity, which appropriately reflects the Commission's principles that rates must be based on forward-looking economic costs and reflect the conditions of a competitive market. To determine this capital structure, Dr. Vander Weide examined data for both a proxy group of S&P Industrials and a group of telecommunications companies with incumbent local exchange subsidiaries. He examined the most current available data for these companies and also reviewed data for the previous five years. In all periods, the average market value capital structure for these companies contained no more than 25% debt and no less than 75% equity. (VZ-VA Ex. 104 at 44.)

AT&T/WorldCom, on the other hand, derived their cost of capital figure by assuming a "book value" capital structure of 49% debt and 51% equity and a "market value" capital structure of 20% debt and 80% equity and then simply splitting the difference between the results. This entire approach turns on Mr. Hirshleifer's insistence that he may legitimately treat Verizon VA as a monopolist provider even while assessing its cost of capital in the forward-looking market. Thus, Mr. Hirshleifer specifically defended his decision to use a *book* value capital structure — which reflects historical rather than forward-looking costs — because, in his opinion, the book value capital structure better reflects the historical financing of the "traditional monopolistic local exchange business." (AT&T/WCom Ex. 10 at 34.) Not surprisingly, Mr. Hirshleifer's approach significantly reduces his recommended cost of capital.

As explained by Dr. Vander Weide, in a competitive market, investors and analysts rely upon market value capital structures, not book value capital structures, to estimate the cost of

capital. No reasonable economist would rely on a book value capital structure to estimate the forward-looking weighted average cost of capital, because book values reflect accounting conventions and purely historical costs.[44/] (VZ-VA Ex. 112 at 26-28.[45/]) In fact, Mr. Hirshleifer concedes that a market value capital structure should be used to estimate the cost of capital for companies in a high-risk, competitive market. (AT&T/WCom Ex. 10 at 33.)

b) Proxy Group

To determine Verizon VA's forward-looking cost of equity, Dr. Vander Weide used the S&P Industrials as a proxy group for the risk of providing UNEs in Virginia. As Dr. Vander Weide explained, the S&P Industrials consist of a broad sample of companies whose average risk reflects the typical risk a firm faces in a competitive market and that accordingly provide a useful though conservative approximation of the risk that a company like Verizon VA would face in a competitive UNE market. (VZ-VA Ex. 118 at 32-33.) In the absence of a large sample of public companies whose sole business is the provision of UNEs to competitors, Dr. Vander Weide determined that the S&P Industrials were a reasonable and appropriate proxy group. Dr. Vander Weide used a discounted cash flow analysis to determine a weighted average cost of equity for these companies of 14.75%. (VZ-VA Ex. 104 at 54.) While this value would be appropriate if UNE prices were set based on Verizon VA's real forward-looking costs, it actually

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[44/] Mr. Hirshleifer's observation that regulators have used book value capital structures in traditional rate of return hearings is correct but also irrelevant; a UNE cost proceeding is not a traditional rate of return hearing. In UNE proceedings, the Commission has expressly prohibited the use of unadjusted embedded costs of the sort used by Mr. Hirshleifer. (*See, e.g.*, VZ-VA Ex. 112 at 36-37.)

[45/] *See also* Copeland & Weston, *Financial Theory and Corporate Policy*, ch. 13 (3d ed. 1998); Brealey & Myers, *Principles of Corporate Finance* 214 (5th ed. 1996); Robert C. Higgins, *Analysis for Financial Management*, ch. 8 (4th ed. 1995).

understates the risks inherent in being required to provide UNEs to competitors in a TELRIC pricing world.[46/]

In contrast, AT&T/WorldCom used a proxy group consisting of Verizon, SBC, Bell South, and ALLTEL.[47/] As Dr. Vander Weide explained, this group simply is too small to calculate an accurate estimate of the cost of capital for use in UNE studies. (VZ-VA Ex. 112 at 38.) In addition, AT&T/WorldCom fail to recognize that their proxy group is less risky than the UNE business: their proxy group of telecommunications holding companies can diversify away many of the technology risks Verizon VA faces in a competitive UNE market, including increasing technology risk due to developments such as packet switching and wireless technologies, and competition from other providers, like the wireless and alternative access providers that *already* exist and almost certainly will expand in Verizon VA's market. (*See* VZ-VA Ex. 103 at 1-19 and Attachment 4; VZ-VA Ex. 104 at 38; VZ-VA Ex. 112 at 22-23.) There is also the particular risk associated with the provision of UNEs; Verizon VA is required to make a large sunk investment in UNE facilities, but has no guaranteed return on this investment. CLECs may purchase UNEs on a month-to-month basis while constructing their own facilities, and then abandon Verizon VA's network once they are in a position to offer facilities-based service. (VZ-VA Ex. 118 at 11.)

46/ In particular, as noted above, under an instantaneous, ubiquitous replacement version of TELRIC, the cost of capital would be higher than what Dr. Vander Weide has proposed. (*See* VZ-VA Ex. 111 at 19-21.)

47/ In his CAPM model, Mr. Hirshleifer added a fifth company, CenturyTel.

3. AT&T/WorldCom's Three-Stage DCF Model Produces Irrational Results.

AT&T/WorldCom proposed cost of equity is further flawed because of the assumptions contained in Mr. Hirshleifer's three-stage DCF model.[48/] Mr. Hirshleifer assumes that his proxy companies' earnings and dividends will grow in line with Value Line's dividend growth forecast in year one and the I/B/E/S analysts' earnings growth forecast in years two through five, decline over a period of fifteen years to his expected GNP growth rate of 6.29%, and then remain there permanently. (AT&T/WCom Ex. 5 at 16.) In addition to being completely arbitrary, these assumptions ignore that it is common for companies to grow at rates much greater than that of the GNP for long periods of time and that the average I/B/E/S rate of growth for the companies in Mr. Hirshleifer's proxy group is typically achievable for a period of longer than five years in a rapidly growing industry such as telecommunications. (*See* VZ-VA Ex. 112 at 44.) Mr. Hirshleifer also ignores the ample evidence that investors expect Dr. Vander Weide's telecommunications holding companies to grow at rates significantly higher than Mr. Hirshleifer's 6.29% in the long run.[49/] (*See* VZ-VA Ex. 112 at 44; VZ-VA Ex. 118 at 39.)

Mr. Hirshleifer's arbitrary and unsupported growth assumptions produce DCF results that significantly understate Verizon VA's cost of equity. Dr. Vander Weide demonstrated that Mr. Hirshleifer's DCF model produces the illogical result that *higher* risk companies have a *lower*

48/ Dr. Vander Weide explained at the hearings that what matters are the assumptions used and the results obtained by using a single-stage versus three-stage model, not the model itself. (Tr. at 3432-33, 3437-39, 3442, 3469-70, 3500-01.) Thus, the recent literature cited by AT&T/WorldCom regarding three-stage models is meaningless — the issue is whether the competing models in this case produce reasonable results.

49/ As Dr. Vander Weide explained, companies with higher expected growth have correspondingly higher risk, which means that investors demand an overall higher rate of return. Mr. Hirshleifer's model produces results that contradict the basic common sense standard that the cost of equity should increase with the risk of the investment. (VZ-VA Ex. 112 at 72-73.)